deflected toward the small end of the chamber, substantially as set forth. 9th. The combination with an upwardly tapering separating chamber, provided with a feeder whereby the material to be separated is delivered into the chamber end, with outlets for the heavy and light material at different distances from the axis of the chamber of a rotating shaft arranged centrally in the chamber, a circular plate secured to said shaft, and wings or blades secured to said plate, substantially as set forth. 10th. The combination with a tapering, separating chamber, of a feeder whereby the material to be separated is delivered into the chamber, means whereby the body of air in the chamber is caused to rotate therein, an outlet for solid matter, and an adjustable gate applied to said outlet, substantially as set forth. 11th. The combination with a closed tapering separating chamber, provided with outlets for the heavy and light material located respectively at its large and small ends, of a feeder, whereby the material to be separated is delivered into the chamber, a rotating air propelling device arranged within the chamber, and causing the air contained therein to circulate along the peripheral wall to the small end of the chamber and through the axial portion back to the large end, and a rotating cleaner sweeping the inner surface of the separating chamber, substantially as set forth.

No. 35,658. Money Changer.

(*Appareil pour changer la monnaie.*)

William Henry Staats, Chicago, Illinois, U.S.A., 24th December, 1890; 5 years.

Claim.—1st. In a money changer, the combination of an upright lever, having a lip and rod end, a spiral spring on the rod end, an ejector slide hinged to the lever, a key-lever having an upright standard, and a coin-holder having a rear lug, substantially as shown and described and for the purpose set forth. 2nd. In a money-changer, an ejector slide, having flanged arms, curved ends, and a spring, in combination with an upright lever and a frame, having coin-seats and openings, whereby the coin is ejected and the slide returned to its normal position and the lever operated, substantially as shown and described. 3rd. In a money-changer, the frame D, having coin seats d^1, spaces d^4, d^5, c^4, flange d, raised surface d^2, guide-braces d^3 and lugs d^7, all in one piece, substantially as shown and described. 4th. In a money-changer, the ejector slide E, having the forked arms e, e, brace e^1, and raised ledges e^2, e^2, and spring h, the ends of the arms cut out circularly, substantially as shown and described. 5th. In a money-changer, the key lever K, having the shield a^6, opening r, standard n, having rubber cushion s and thumb key t, substantially as shown and described and for the purpose set forth. 6th. In a money changer, the combination of the coin-holder C, having perforated lugs h^3, the frame D, having coin seats and openings, the key-lever K, the ejector-slide E, the lever H, and spring h and h^4, all constructed, arranged and operating substantially as shown and described. 7th. In a money-changer, the frame D, having coin seats d^1, spaces d^4, d^5, c^4, flange d, raised surfaces d^2, guide braces d^3 and lugs d^7, all in one piece, in combination with cushions a^9, located between the lugs d^7, substantially as shown and described. 8th. In a money-changer, the lever H, having a lip and rod end, and its lower end having the rod e^4 all formed in one piece, substantially as shown and described. 9th. In a money-changer, the slide E, having the lugs e^3, e^3, formed with channel or slots, in combination with the rod e^4, cast or formed in one piece, with the lever H, substantially as shown and described, and for the purpose set forth.

No. 35,659. Cure for Rheumatism.

(*Composition medécinale pour la guérison du rheumatismes.*)

John Bell, Hamilton, Ontario, Canada, 24th December, 1890; 5 years.

Claim.—A medicinal compound, to be used as a cure for rheumatism, consisting of stone sulphur, saltpetre, cream of tartar, and with or without liquorice, in or about the proportions specified.

No. 35,660. Manufacture of Metallic Cartridges. (*Fabrication des cartouches metalliques.*)

Asa Norman Whitney, Melbourne, Australia, 24th December, 1890; 5 years.

Claim.—1st. The method of manufacturing the tubular portion or body of a cartridge case by stamping and drawing a thin metal disc or blank of comparatively large diameter, substantially as hereinbefore described. 2nd. The method of manufacturing a cartridge case, consisting in, first, forming the tubular portion by stamping and drawing a thin metal disc or blank of comparatively large diameter, and then securing a separately formed base to the said tubular portion, by means of a cap chamber, substantially as hereinbefore described. 3rd. A metallic cartridge, the body or tubular portion of which is formed by stamping and drawing a thin metal disc or blank of comparatively large diameter, substantially as hereinbefore described. 4th. A metallic cartridge, the case or shell of which has a seamless body or tubular portion, and the base or head of which is secured to the said body or tubular portion by means of the cap chamber. 5th. The strengthening disc J, in combination with the body A, base B and cap chamber C reenforcing the base of the cartridge from within, as set forth.

No. 35,661. Machine for Making and Printing Envelopes. (*Machine pour fabriquer et imprimer les envelopes.*)

Charles Henry Heywood, Springfield, Massachusetts, U.S.A., 24th December, 1890; 5 years.

Claim.—1st. In an envelope machine, the combination, with a blank supporting table, a gumming bed and a carrying support for said bed, which at one end is pivotally hung, of a rock-shaft linked to said bed-carrying support, and means for conveying blanks from said blank-supporting table to said gumming-bed, substantially as and for the purpose set forth. 2nd. The combination, with a gumming-bed and movable supports therefor, whereby said gumming-bed may be raised and lowered, of the horizontally-reciprocating slide fingers 75, provided with abutment lugs, upper and lower slide strips 79 and 80, having abutment gages, and the feed-in tapes, 77 and 78, substantially as and for the purpose described. 3rd. The combination, with a gumming-bed and movable supports therefor, whereby said gumming-bed may be raised and lowered, of horizontally-reciprocating slide fingers 75, provided with abutment lugs, upper and lower slide strips 79 and 80, having abutment gages, the feed-in tapes 77 and 78, and one or more blank-adjusting dogs 103, mounted and adapted to have a horizontally-reciprocatory and a vertical tilting movement, substantially as and for the purpose described. 4th. In combination, a gumming-bed having an aperture therein, a platen above said aperture, a vertically-moving type-carrying bed adapted to present the face of its type through said aperture, and a reciprocating gummer, the said gummer and type bed being arranged for their reciprocatory movements in lines embraced within the area on said gumming-bed, to be covered by the blank to be gummed and printed thereon, whereby such blank resting on said gumming-bed may be gummed and printed without being moved, substantially as described. 5th. The combination, with a gumming bed, having an aperture 89 therein, and automatic vertically movable supporting means therefor, substantially as described, of a platen above said aperture and a vertically-movable type-carrying bed adapted to present the face of its type through said aperture, substantially as and for the purposes set forth. 6th. The combination, with a gumming-bed and automatic vertically movable supporting means therefor, substantially as described, a pneumatic picker and two pairs of slide strips, each comprising upper and lower strips 79, 80, provided with abutment gages 90, and supporting and actuating means, substantially as described, whereby the upper strip of one pair may be automatically raised and lowered, of the reciprocating fingers 75, feed-in tapes 77 and 78, the reciprocating adjusting dogs 103 and reciprocating gummers 44, a creasing frame located towards the rear end of the machine from said gumming-bed, and having adjusting gages 276, upper and lower tapes for conveying blanks from said gumming-bed to said creasing frame, one of said tapes being movably supported at its portion toward said gumming-bed, substantially as described, whereby it may be intermittently made to run in and out of contact with the adjacent portion of the other tape, and fingers 269 for adjusting the blanks upon the creasing frame, substantially as described. 7th. In an envelope machine, the combinaton, with a bed formed and supported to sustain blanks thereon, with a portion thereof overlying one edge of the bed, and with blank folding mechanism, of devices intermediate of said bed, and blank folding mechanism, and adapted to convey blanks from the former to the latter, consisting of the supporting rolls 252, 253 and the endless tape 255, supported thereon and running by a portion of its course over the position of said portion of the blank overlying the edge of the said bed, a roll 258, and a swinging arm, the centre of oscillation of which is coincident with the axis of said roll 258, and a roll 259, carried by said arm, an endless tape carried on said rolls, and means, substantially as described, for securing a reciprocating swinging motion of said roll-carrying arm, whereby the portion of the endless tape carried thereon may be carried into and out of a position for engagement with the portion of a blank overlying the said bed, substantially as described. 8th. The combination, with a gumming-bed and the supporting arms 110 therefor, by one end pivoted to a fixed support, of a rock-shaft provided with one or more radial arms 113, linked to said arms, and having a radial arm 115, a cam 117, and a thrust-rod 116, operated thereby, and engaged with said radial arm 115, substantially as and for the purpose described, 9th. The combination, with a gumming-bed, provided with an aperture 174, and having the supporting arms 110, by one end pivoted to a fixed support, of a rock-shaft provided with one or more radial arms 113, linked to said arms, and having a radial arm 115, provided with a lateral stud 182, a cam 117, and a thrust-rod 116, having a spring-sustained angular pawl-lever 177 pivoted thereto, one end of which is hooked and adapted normally to support the said radial arm pin, and the other arm of which is provided with a lateral stud 179, and a rock-shaft 170, provided with radial arms 172, 175, the former having a downward extension in the plane of said gumming-bed aperture, and the latter having a lateral abutment extension, all adapted and arranged for operation, substantially as and for the purpose described. 10th. The combination, with the rock-shaft, radial arm 145 and a shaft or arbor 67, of a loose collar thereon and a connecting rod 146 secured by one end to said radial arm and by the other end pivoted to the side of said collar, a curved arm 148, pivoted by its one end to said collar and by its other fastened to the end of a spring, and so arranged that the spring strain on said arm may have a tendency to turn said collar in either direction, according as the pivotal point of said arm is at either side of the line of the spring, substantially as and for the purpose described. 11th. The combination, with the gumming-bed, having an aperture 89 therein, supported and vertically movable, substantially as described, of a reciprocating bridging slide 150 and actuating means therefor, substantially as described, for projecting said slide forward to partially support a fed-in blank when the gumming bed is lowered, substantially as described. 12th. In combination, a horizontally-supported rock shaft 84, having a pinion 155 and a spur gear 153 thereon, a guide shoe K, comprising a back plate 158, and perforated ear pieces 159, loosely surrounding said shaft and embracing said pinion, a racked thrust-rod 156, guided in said shoe and meshing with said pinion, a cam 107 and spring for reciprocating said thrust-rod, and the horizontally movable racked bridging slide 150, all substantially as and for the purpose described. 13th. The combination, with the upper slide strip 79, of one set of slide strips comprised in the devices for guiding the blanks to the gumming-bed, having a downwardly-extending abutment gage 90 thereon and pivotally supported by its forward end, of a lever swinging from a fixed center of oscillation, as the shaft 84, and